

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/561,097
Source: IFWP
Date Processed by STIC: 1/3/06

ENTERED



IFWP

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/561,097

DATE: 01/03/2006
TIME: 11:00:00

Input Set : A:\MER-141-SEQLST.txt
Output Set: N:\CRF4\01032006\J561097.raw

```

4 <110> APPLICANT: BAKER, Matthew
5          WATKINS, John
7 <120> TITLE OF INVENTION: THROMBOPOIETIN PROTEINS WITH IMPROVED
8          PROPERTIES
10 <130> FILE REFERENCE: MER-141
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/561,097
C--> 13 <141> CURRENT FILING DATE: 2005-12-16
15 <150> PRIOR APPLICATION NUMBER: PCT/US2004/006887
16 <151> PRIOR FILING DATE: 2004-06-25
18 <150> PRIOR APPLICATION NUMBER: EP 03014331.7
19 <151> PRIOR FILING DATE: 2003-06-26
21 <160> NUMBER OF SEQ ID NOS: 138
23 <170> SOFTWARE: FastSEQ for Windows Version 4.0
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 174
27 <212> TYPE: PRT
28 <213> ORGANISM: Artificial Sequence
30 <220> FEATURE:
31 <223> OTHER INFORMATION: Modified human TPO
W--> 33 <221> NAME/KEY: VARIANT
34 <222> LOCATION: 50, 51, 55, 58
35 <223> OTHER INFORMATION: X=A or E;
36          X=S or W;
37          X=A, T, K, S or M;
38          X=A or T
W--> 41 <221> VARIANT
42 <222> LOCATION: 60, 61, 63, 67
43 <223> OTHER INFORMATION: X=R or A;
44          X=A, T or Q;
45          X=A, T, or I;
46          X=A, T or V
W--> 49 <221> VARIANT
50 <222> LOCATION: 69, 71, 72, 161
51 <223> OTHER INFORMATION: X=A, T, S or L;
52          X=A or L;
53          X=A, S or E;
54          X=N, A, T, R, E, D, G, H, P, K, Q or V
W--> 56 <221> VARIANT
57 <222> LOCATION: 162
58 <223> OTHER INFORMATION: X=A or P
W--> 60 <400> 1
61 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu
62          1          5          10          15

```

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63 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val
64 20 25 30
65 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu
66 35 40 45
W--> 67 Gly Xaa Xaa Lys Thr Gln Xaa Glu Glu Xaa Lys Xaa Xaa Asp Xaa Leu
68 50 55 60
W--> 69 Gly Ala Xaa Thr Xaa Leu Xaa Xaa Gly Val Met Ala Ala Arg Gly Gln
70 65 70 75 80
71 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln
72 85 90 95
73 Val Arg Leu Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu
74 100 105 110
75 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe
76 115 120 125
77 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu
78 130 135 140
79 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala
80 145 150 155 160
W--> 81 Xaa Xaa Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu
82 165 170
85 <210> SEQ ID NO: 2
86 <211> LENGTH: 27
87 <212> TYPE: PRT
88 <213> ORGANISM: homo sapiens
90 <400> SEQUENCE: 2
91 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu
92 1 5 10 15
93 Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met
94 20 25
97 <210> SEQ ID NO: 3
98 <211> LENGTH: 15
99 <212> TYPE: PRT
100 <213> ORGANISM: homo sapiens
102 <400> SEQUENCE: 3
103 Pro Thr Thr Ala Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu
104 1 5 10 15
107 <210> SEQ ID NO: 4
108 <211> LENGTH: 332
109 <212> TYPE: PRT
110 <213> ORGANISM: homo sapiens
112 <400> SEQUENCE: 4
113 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu
114 1 5 10 15
115 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val
116 20 25 30
117 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu
118 35 40 45
119 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ile Leu
120 50 55 60

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121 Gly Ala Val Thr Leu Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln
122 65 70 75 80
123 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln
124 85 90 95
125 Val Arg Leu Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu
126 100 105 110
127 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe
128 115 120 125
129 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu
130 130 135 140
131 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala
132 145 150 155 160
133 Val Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu Pro Asn
134 165 170 175
135 Arg Thr Ser Gly Leu Leu Glu Thr Asn Phe Thr Ala Ser Ala Arg Thr
136 180 185 190
137 Thr Gly Ser Gly Leu Leu Lys Trp Gln Gln Gly Phe Arg Ala Lys Ile
138 195 200 205
139 Pro Gly Leu Leu Asn Gln Thr Ser Arg Ser Leu Asp Gln Ile Pro Gly
140 210 215 220
141 Tyr Leu Asn Arg Ile His Glu Leu Leu Asn Gly Thr Arg Gly Leu Phe
142 225 230 235 240
143 Pro Gly Pro Ser Arg Arg Thr Leu Gly Ala Pro Asp Ile Ser Ser Gly
144 245 250 255
145 Thr Ser Asp Thr Gly Ser Leu Pro Pro Asn Leu Gln Pro Gly Tyr Ser
146 260 265 270
147 Pro Ser Pro Thr His Pro Pro Thr Gly Gln Tyr Thr Leu Phe Pro Leu
148 275 280 285
149 Pro Pro Thr Leu Pro Thr Pro Val Val Gln Leu His Pro Leu Leu Pro
150 290 295 300
151 Asp Pro Ser Ala Pro Thr Pro Thr Pro Thr Ser Pro Leu Leu Asn Thr
152 305 310 315 320
153 Ser Tyr Thr His Ser Gln Asn Leu Ser Gln Glu Gly
154 325 330
157 <210> SEQ ID NO: 5
158 <211> LENGTH: 7
159 <212> TYPE: PRT
160 <213> ORGANISM: Artificial Sequence
162 <220> FEATURE:
163 <223> OTHER INFORMATION: Linker peptide
165 <400> SEQUENCE: 5
166 Gly Ser Gly Ser Gly Ser Gly
167 1 5
170 <210> SEQ ID NO: 6
171 <211> LENGTH: 174
172 <212> TYPE: PRT
173 <213> ORGANISM: Artificial Sequence
175 <220> FEATURE:
176 <223> OTHER INFORMATION: Modified human TPO

RAW SEQUENCE LISTING DATE: 01/03/2006
 PATENT APPLICATION: US/10/561,097 TIME: 11:00:00

Input Set : A:\MER-141-SEQLST.txt
 Output Set: N:\CRF4\01032006\J561097.raw

178 <400> SEQUENCE: 6
 179 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu
 180 1 5 10 15
 181 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val
 182 20 25 30
 183 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu
 184 35 40 45
 185 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Arg Gln Asp Ile Leu
 186 50 55 60
 187 Gly Ala Val Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln
 188 65 70 75 80
 189 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln
 190 85 90 95
 191 Val Arg Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu
 192 100 105 110
 193 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe
 194 115 120 125
 195 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu
 196 130 135 140
 197 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala
 198 145 150 155 160
 199 Ala Pro Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu
 200 165 170
 203 <210> SEQ ID NO: 7
 204 <211> LENGTH: 174
 205 <212> TYPE: PRT
 206 <213> ORGANISM: Artificial Sequence
 208 <220> FEATURE:
 209 <223> OTHER INFORMATION: Modified human TPO
 211 <400> SEQUENCE: 7
 212 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu
 213 1 5 10 15
 214 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val
 215 20 25 30
 216 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu
 217 35 40 45
 218 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Ala Leu
 219 50 55 60
 220 Gly Ala Thr Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln
 221 65 70 75 80
 222 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln
 223 85 90 95
 224 Val Arg Leu Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu
 225 100 105 110
 226 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe
 227 115 120 125
 228 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu
 229 130 135 140
 230 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala

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Input Set : A:\MER-141-SEQLST.txt
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231 145 150 155 160
232 Asn Ala Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu
233 165 170
236 <210> SEQ ID NO: 8
237 <211> LENGTH: 174
238 <212> TYPE: PRT
239 <213> ORGANISM: Artificial Sequence
241 <220> FEATURE:
242 <223> OTHER INFORMATION: Modified human TPO
244 <400> SEQUENCE: 8
245 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu
246 1 5 10 15
247 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val
248 20 25 30
249 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu
250 35 40 45
251 Gly Glu Trp Lys Thr Gln Met Glu Glu Thr Lys Ala Gln Asp Thr Leu
252 50 55 60
253 Gly Ala Ala Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln
254 65 70 75 80
255 Leu Gly Pro Thr Cys Leu Ser Ser Leu Leu Gly Gln Leu Ser Gly Gln
256 85 90 95
257 Val Arg Leu Leu Leu Gly Ala Leu Gln Ser Leu Leu Gly Thr Gln Leu
258 100 105 110
259 Pro Pro Gln Gly Arg Thr Thr Ala His Lys Asp Pro Asn Ala Ile Phe
260 115 120 125
261 Leu Ser Phe Gln His Leu Leu Arg Gly Lys Val Arg Phe Leu Met Leu
262 130 135 140
263 Val Gly Gly Ser Thr Leu Cys Val Arg Arg Ala Pro Pro Thr Thr Ala
264 145 150 155 160
265 Asn Ala Ser Arg Thr Ser Leu Val Leu Thr Leu Asn Glu Leu
266 165 170
269 <210> SEQ ID NO: 9
270 <211> LENGTH: 174
271 <212> TYPE: PRT
272 <213> ORGANISM: Artificial Sequence
274 <220> FEATURE:
275 <223> OTHER INFORMATION: Modified human TPO
277 <400> SEQUENCE: 9
278 Ser Pro Ala Pro Pro Ala Cys Asp Leu Arg Val Leu Ser Lys Leu Leu
279 1 5 10 15
280 Arg Asp Ser His Val Leu His Ser Arg Leu Ser Gln Cys Pro Glu Val
281 20 25 30
282 His Pro Leu Pro Thr Pro Val Leu Leu Pro Ala Val Asp Phe Ser Leu
283 35 40 45
284 Gly Glu Trp Lys Thr Gln Ala Glu Glu Thr Lys Ala Gln Asp Ala Leu
285 50 55 60
286 Gly Ala Ala Thr Leu Leu Glu Gly Val Met Ala Ala Arg Gly Gln
287 65 70 75 80

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/561,097

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Input Set : A:\MER-141-SEQLST.txt
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 50, 51, 55, 58, 60, 61, 63, 67, 69, 71, 72, 161, 162

VERIFICATION SUMMARY DATE: 01/03/2006
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Input Set : A:\MER-141-SEQLST.txt
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L:12 M:270 C: Current Application Number differs, Replaced Current Application Number
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:33 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:41 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1
L:49 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1
L:56 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1
L:60 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1
L:67 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:48
L:69 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:64
L:81 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:160